

# SPINNER RF Cable Connectivity Solutions



Higher Precision – Lower Losses



HIGH FREQUENCY PERFORMANCE WORLDWIDE  
[spinner-group.com](http://spinner-group.com)



# The SPINNER Group

For nearly 80 years, the SPINNER Group has been setting new standards worldwide in high-frequency technology. Based in Munich with production facilities in Germany, Hungary and China, SPINNER currently has over 800 employees. Our international network of subsidiaries and distributors supports customers in over 40 countries.



TEST &amp; MEASUREMENT



COMMUNICATION



BROADCAST



SATCOM/SPACE



DEFENSE



INDUSTRY



SUBSEA/OFFSHORE

## RF Measurement

These days, up-to-date measurement equipment is essential for all development, production, testing and quality control departments that deal with RF signals on coaxial lines. Particularly for vector network analyzers, high-precision connectors, terminations, and adapters are a must.

The same statement applies to calibration kits and mechanical accessories such as gauges for checking mating face dimensions or torque wrenches for tightening coupling nuts. In all of these cases, SPINNER has established new, extremely high standards of precision which most users would not want to do without.

Precisely measured values are especially important when transmitting high power levels. Other major applications

includes extensive testing of mobile communications systems, terahertz communication, terabit ethernet high-speed data transmission and quantum research.

SPINNER supplies coaxial measurement equipment of outstanding electrical and mechanical quality for use at frequencies up to 250 GHz.

## Coaxial and Waveguide Measurement Devices

Coaxial & waveguide measurement devices made by SPINNER are needed for:

### VNA / S-Parameter Measurement

- Calibration and verification standards
- Air lines
- Rotary joints
- Articulated lines
- Adapters
- Connector gauges

### Millimeter Wave Measurement

- Ruggedized test port adapters
- mmWave waveguide-to-coaxial adapters
- 0.5 mm, 0.8 mm & 1.0 mm coaxial connector system
- Cable connectivity solutions
- 1.35 mm E Connector
- EasyLaunch PCB connectors
- EasySnake flexible dielectric waveguides
- Connectivity solutions for RF anechoic chambers

### PIM Measurement and Test Automation

- EasyDock push-pull adapters
- Low PIM switches
- Low PIM test cables
- Low PIM rotary joints
- Low PIM loads
- Low PIM passive intermodulation standards



### Connectivity Solutions for RF Anechoic Chambers

- Ruggedized test port adapters
- mmWave waveguide-to-coaxial adapters
- Panel feedthroughs
- Articulated lines
- EasySnake flexible dielectric waveguides
- Rotary joints

## SPINNER Cable Connectors: Highest Performance for Your RF Cables

We offer cable connectors with prefabricated inner conductors, as well as connectors with only the outer conductor, where the cable's inner conductor simultaneously serves as the connector's inner conductor. This type is called a thru-male.



### Rugged, Customized & Reliable

With our broad portfolio and commitment to customer-specific designs, we deliver **high-performance connectivity solutions** that meet the most demanding technical and environmental requirements.

#### Ruggedized Interfaces

Our product portfolio also includes **ruggedized (RUG) interfaces** designed for demanding environments where durability and reliability are essential.



#### Customized Solutions

We specialize in developing **solutions tailored precisely to your requirements**. Whether you need modifications to existing products or entirely new designs, our engineering team collaborates closely with you to ensure the perfect fit for your application.



#### Armored Cable Solutions

For **specialized applications**, we provide cable connectors engineered for use with **armored cables**, available upon request. These solutions ensure secure and reliable connectivity, even under the most challenging conditions.



#### Thru-Male Connector

Our innovative design eliminates the need for an additional inner conductor.



### Need Complete Assemblies?

SPINNER also offers professional cable assembly services.

Simply send us your request — we'll deliver a tailored, ready-to-use solution!

# Cable Precision Connectors – Overview

Connector:		Suitable Cable:	Semi-Rigid 0.023" e.g. UT-020	Semi-Rigid 0.023" e.g. EZ-20-LA	Semi-Rigid 0.031" e.g. UT-031-LL EZ-31-LA	Semi-Rigid 0.034" e.g. UT-034	Semi-Rigid 0.047" e.g. UT-047	Semi-Rigid UT-047-LL	Semi-Rigid UT-070-LL	Semi-Rigid 0.085" e.g. UT-085 Flexiform 405 RG 405
		center contact Ø	~ 0.13mm	~ 0.14mm	~ 0.20mm	~ 0.20mm	~ 0.29mm	~ 0.29mm	~ 0.51mm	~ 0.51mm
		insulator Ø	~ 0.38mm	~ 0.43mm	~ 0.61mm	~ 0.66mm	~ 0.95mm	~ 0.95mm	~ 1.50mm	~ 1.70mm
		outer contact Ø	~ 0.58mm	~ 0.58mm	~ 0.79mm	~ 0.86mm	~ 1.20mm	~ 1.22mm	~ 1.78mm	~ 2.19mm
0.5 mm	12 dB @ DC to 250 GHz	male	BN 530513	BN 530518	○	○	○	○		
		female	BN 530514	BN 530519	○	○	○	○		
0.8 mm	17 dB @ DC to 167 GHz	male	○	BN 530863	BN 530828	BN 530827	○	○		
		female	○	BN 530830	BN 530824	○	○	○		
1.00 mm	15 dB @ DC to 120 GHz	male	○	○	○	○	BN 533144	BN 533186		
		female	○	○	○	○	BN 533188	BN 533187		
1.35 mm	17 dB @ DC to 90 GHz	male	○	○	○	○	BN 534949	BN 534981		
		female	○	○	○	○	BN 534947	BN 534982		
1.85 mm	28 dB @ DC to 70 GHz	male	○	○	○	○	○	○	BN 641919	BN 641797
		female	○	○	○	○	○	○		BN 642697
2.4 mm	22 dB @ DC to 50 GHz	male	○	○	○	○	○	○	○	○
		female	○	○	○	○	○	○	○	○
2.92 mm	23 dB @ DC to 44 GHz	male					BN 641915	○	○	BN 641798
		female					○	○	○	○
3.5 mm	22 dB @ DC to 26.5 GHz	male					○	○	○	○
		female					○	○	○	○
N	30 dB @ DC to 18 GHz	male								○
		female								○
BNC	23 dB @ DC to 18 GHz	male								○
		female								○
TNC	23 dB @ DC to 18 GHz	male								BN 474306
		female								○

○ Products On Demand – Contact Us

Semi-Rigid UT-085-LL CR-085-LL	Multibend 405 SS-405 Multibend 405	Flexible Low-Loss SS-405flex	Flexible Low-Loss UFA125A	Semi-Rigid EZ-118	Semi-Rigid UT-120-LL	Semi-Rigid 0.141" e.g. UT-141 HFE 160D RG 402	Semi-Rigid LL142	Flexible Low-Loss UFA147A	Semi-Rigid 0.250" e.g. UT-250 RG 401	Flexible Low-Loss UFB311A
~ 0.57mm	~ 0.51mm	~ 0.48mm	~ 0.72mm	~ 0.80mm	~ 0.91mm	~ 0.92mm	~ 1.30mm	~ 1.40mm	~ 1.63mm	~ 2.30mm
~ 1.68mm	~ 1.63mm	~ 1.42mm	~ 2.16mm	~ 2.20mm	~ 2.69mm	~ 3.01mm	~ 3.68mm	~ 4.06mm	~ 5.31mm	~ 6.30mm
~ 2.20mm	~ 2.19mm	~ 1.96mm	~ 2.62mm	~ 3.00mm	~ 3.05mm	~ 3.58mm	~ 4.42mm	~ 4.72mm	~ 6.30mm	~ 7.29mm
○	BN 641911	BN 641910	○							
BN 641977	BN 642682	BN 642681	○							
○	BN 641914	○	○							
○	BN 642685	○	○							
○	BN 641913	BN 641912	○	BN 641918	BN 641796	○	○	○		
○	BN 642684	BN 642683	○	○	○	○	○	○		
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○



## HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.

Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions. Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

[www.spinner-group.com](http://www.spinner-group.com)

### SPINNER GmbH

#### Headquarters

Erzgiessereistr. 33

80335 Munich

#### GERMANY

Phone: +49 89 12601-0

[info@spinner-group.com](mailto:info@spinner-group.com)

### SPINNER ANZ Pty. Ltd

44 Lakeview Dr,

Scoresby VIC 3179

#### AUSTRALIA

Phone: +61 413 200677

[info-anz@spinner-group.com](mailto:info-anz@spinner-group.com)

### SPINNER Austria GmbH

Modecenterstraße 22/C38

1030 Vienna

#### AUSTRIA

Phone: +43 1 66277 51

[info-austria@spinner-group.com](mailto:info-austria@spinner-group.com)

### SPINNER Electrotécnica S.L.

c/ Perú, 4 – Local n° 15

28230 Las Rozas (Madrid)

#### SPAIN

Phone: +34 91 6305 842

[info-iberia@spinner-group.com](mailto:info-iberia@spinner-group.com)

### SPINNER France S.A.R.L.

32-34 avenue Kléber

75116 Paris

#### FRANCE

Phone: +33 6 32505210

[info-france@spinner-group.com](mailto:info-france@spinner-group.com)

### SPINNER ICT Inc.

2220 Northmont Parkway, 250

Duluth, GA 30096

#### USA

Phone: +1 770 2636 326

[info@spinner-group.com](mailto:info@spinner-group.com)

### SPINNER Nordic AB

Kräketorpsgatan 20

43153 Mölndal

#### SWEDEN

Phone: +46 31 7061670

[info-nordic@spinner-group.com](mailto:info-nordic@spinner-group.com)

### SPINNER Telecommunication

Devices (Shanghai) Co., Ltd.

351 Lian Yang Road

Songjiang Industrial Zone

Shanghai 201613

#### P.R. CHINA

Phone: +86 21 577 45377

[info-china@spinner-group.com](mailto:info-china@spinner-group.com)

### SPINNER UK Ltd.

Suite 8 Phoenix House

Golborne Enterprise Park,

High Street

Golborne, Warrington

WA3 3DP

#### UNITED KINGDOM

Phone: +44 1942 275222

[info-uk@spinner-group.com](mailto:info-uk@spinner-group.com)